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EXAMINER

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 15 August 2008 has been entered.

Claims

2. Claims 1-3, 6-12, 15-20 are pending.

WITHDRAWN OBJECTIONS/REJECTIONS

3. All objections/rejections of record in the Office Action mailed 15 May 2008, pages 2-7, paragraphs 3-7 have been withdrawn due to Applicant's amendments in the Paper filed 15 August 2008.

NEW OBJECTIONS

Specification

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the Specification does not have textual support for "one of said mutually overlapping ends being bent twice in opposite directions" in claims 1, 17 and 20, lines 4-7 of all claims. Applicant is advised to consider amending the text of the Specification while being careful not to add new matter.

NEW REJECTIONS

Claim Rejections - 35 USC § 112

5. Claims 1-3, 6-12, 15-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The phrases “one of said mutually overlapping ends being bent twice in opposite directions” in claims 1, 17 and 20, lines 4-7 of all claims is **new matter**. The Specification including the figures do not disclose the overlapping ends being bent twice. There are bends in the layers but not in the overlapping end regions.
6. The phrases “said fill having a thickness at least such that at the location of the fill the laminate has a thickness equal to a total thickness of the mutually overlapping ends of said metal layer sections and said at least one plastic bonding layer” in claim 1, lines 10-14 and “a fill outside the overlapping zone and having a thickness at least such that at the location of the fill the laminate has a thickness equal to a total thickness of the mutually overlapping ends of said metal layer sections and said at least one plastic bonding layer” in claim 20, lines 11-15 are **new matter**. Support is provided for the laminate having the same thickness in the region where the fill is located and where the fill is not located, however, support is not present for the thickness of the laminate being the same as the above “total thickness”. The “total thickness” is less than the thickness of the laminate and not supported by the original disclosure.

Art Unit: 1794

7. The phrases “a fill that is not one of the metal layers” in claims 1 and 17, line 10 of both claims is **new matter** as the original disclosure does not have support for said negative limitation.

8. Claims 1-3, 6-12, 15-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. The phrases “each of said metal layers comprising two metal layer sections that have mutually overlapping ends whose opposing surfaces are bonded to one another” in claims 1 and 20, lines 4-6 of both claims and “plural metal layers that each comprise two metal layer sections that have, in a first region, overlapping ends whose opposing surfaces are bonded to one another” in claim 17, lines 2-4 are vague and indefinite since it is unclear whether the metal layers are planar, such as the top two metal layers in FIG-2, or non-planar and if the layers are planar then how is it possible for the layers to overlap. Furthermore, if the metal layers are planar then the layers are not alternating.

10. The phrases “one of said mutually overlapping ends being bent twice in opposite directions” in claims 1, 17 and 20, lines 4-7 of all claims is vague and indefinite since it is unclear how it is possible for the overlapping ends to be bent twice when only the facing layers are in direct contact with each other and of the same thickness. The Specification including the figures do not disclose one of the ends being bent twice.

Art Unit: 1794

11. The phrases “a fill that is not one of the metal layers” in claims 1 and 17, line 10 of both claims is vague and indefinite since it is unclear whether the layer is not made of metal or the fill can be made of metal but is a different layer.

12. The phrases “wherein the fill comprises at least a further metal layer with a thickness greater than that of said metal layers” in claim 8, lines 2-3 and “wherein said fill is metal” in claim 19, line 2 are vague and indefinite since it is unclear whether the fill is a single material or multiple materials. Furthermore, it is unclear how the fill can comprise a metal layer while not being a metal layer per independent claim #1.

13. The phrase “wherein said second region has a smaller thickness than said first region” in claim 16, lines 2-3 is vague and indefinite since it is unclear whether the thickness of the laminate in the second region is smaller than the thickness of the laminate in the first region or the thickness of some material in the first region.

14. The phrase “wherein in a second region separate from said first region said two metal layer sections are at a same level of the laminate” in claim 17, lines 7-9 is vague and indefinite since it is unclear what is the “level of the laminate”, thus making it unclear what is the level of the two metal layers and whether the metal layers are at the same level as each other since one is bent.

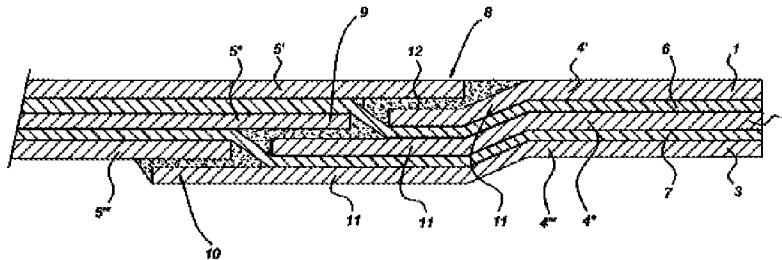
15. The phrase “an overlapping zone” in claim 20, line 9 is vague and indefinite since it is unclear whether the overlapping zone is just where the layers overlap and are bonded or does it extend beyond these locations.

Clarification and/or correction is required.

Claim Rejections - 35 USC § 103

16. Claims 1-3, 6-12, 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roebroeks (WO 02/078950 A1).

Regarding claim 1, Roebroeks ('950) teaches a laminate of alternating metal layers and at least one plastic bonding layer (*See p. 2, ll. 7-11 and FIG, alternating metal layers 1-3, 5', 5'', 5''', plastic layers 6-7 and plastic bonding glue layer #12.*), each of the metal layers comprising two metal layer sections that have mutually overlapping ends whose opposing surfaces are bonded to one another, one of the mutually overlapping ends being bent twice in opposite directions so that the two metal layer sections are extensions of one another (*See FIG where the metal layers overlap and layers 1 and 3 bent twice.*), and



a fill that is not one of the metal layers, with the laminate having uniform thicknesses in the various regions of the laminate (*See FIG where the other metal layers and glue #12 are fills with a constant thickness in the middle region.*), however, fails to expressly disclose the thickness of the laminate at the location of filler being equal to the total thickness of the overlapping metal layer sections and the bonding layer.

However, it would have been obvious to a person having ordinary skill in the art at the time Applicant's invention was made to increase or decrease the thickness of the filler in order to provide the desired surface profile.

Therefore, it would have been obvious to vary the thickness of the filler in order to provide a laminate where the thickness of the laminate at the location of the filler is equal to the thickness of the overlapping metal layer sections and the bonding layer in order to provide a laminate with the desired surface profile.

Regarding claims 2-3 and 12, Roebroeks ('950) teaches a laminate wherein the fill is on at least one/(two) side(s) of two of the mutually overlapping ends (*See FIG, where the fill is on both sides of the ends.*).

Regarding claim 6, Roebroeks ('950) teaches a laminate wherein the laminate has a region in which there is at least one fill and a second region without the fill (*See FIG where the fill is in some regions and not in the other regions.*).

Regarding claim 7, Roebroeks ('950) teaches a laminate wherein the fill comprises at least one metal layer and at least one plastic bonding layer (*See FIG, metal layers and the additional plastic bonding layers #12.*).

Regarding claim 8, Roebroeks ('950) teaches the laminate discussed above, however, fails to expressly disclose wherein the fill comprises at least a further metal layer with a thickness greater than that of the metal layers.

However, it would have been obvious to a person having ordinary skill in the art at the time Applicant's invention was made to provide a structure having layers with

Art Unit: 1794

variable thickness, depending on the end use requirements for reasons such as support or uniform inner or outer surface profiles.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time Applicant's invention was made to provide some metal layers that are thicker than other layers.

Regarding claim 9, Roebroeks ('950) teaches a laminate wherein the plastic bonding layer comprises a layer of adhesive (*See FIG adhesive of #12.*).

Regarding claim 11, Roebroeks ('950) teaches a laminate wherein the fill is interlaminar (*See FIG.*).

Regarding claim 15, Roebroeks ('950) teaches wherein outside of the mutually overlapping ends, each respective one of the metal layers is at a respective same level (*See FIG wherein the layers are at the same level.*).

Regarding claim 16, Roebroeks ('950) teaches wherein the second region has a smaller thickness than said first region (*See FIG wherein the regions have different thickness.*).

Regarding claim 17, Roebroeks ('950) teaches a laminate comprising: plural metal layers that each comprise two metal layer sections that have, in a first region, overlapping ends whose opposing surfaces bonded to one another, one of the overlapping ends being bent twice in opposite directions and being at a level of an adjacent one of the plural metal layers (*See p. 2, ll. 7-11 and FIG, alternating metal layers 1-3, 5', 5'', 5''' , plastic layers 6-7 and plastic bonding glue layer #12 where the metal layers overlap and layers 1 and 3 bent twice.*), wherein in a second region

Art Unit: 1794

separate from the first region the two metal layer sections are at a same level of the laminate (*See FIG wherein the layers are at the same level.*); and a fill that is not one of the metal layers, between an adjacent pair of the plural metal layers in the second region, the fill having a thickness so that the laminate has a same thickness in the first and second regions (*See FIG, metal layers and the additional plastic bonding layers #12.*).

Regarding claim 18, Roebroeks ('950) teaches further comprising respective bonding layers between adjoining ones of the plural metal layers and between the fill and adjoining ones of the plural metal layers (*See FIG, bonding layers bonding the metal layers.*).

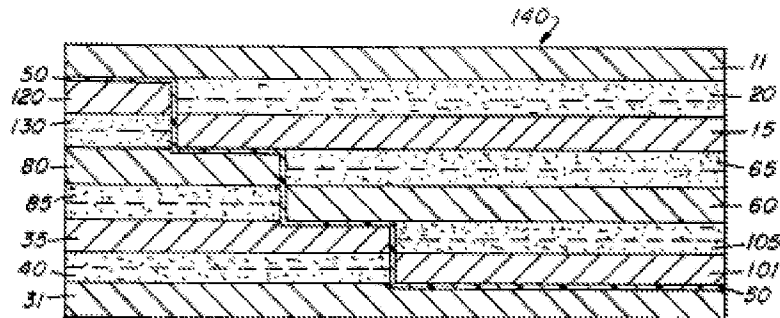
Regarding claim 19, Roebroeks ('950) teaches wherein the fill is metal (*See FIG, where the additional fill layers 1-3, 5', 5'' and 5''' are metal.*).

17. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Roebroeks (WO 02/078950 A1) in view of Lambing (US 5,160,771).

Roebroeks ('950) teaches the laminate discussed above, however, fails to expressly disclose wherein the plastic bonding layer comprises a fibre layer that has been impregnated with an adhesive.

However, Lambing ('771) teaches a laminate wherein the plastic bonding layer comprises a fibre layer that has been impregnated with an adhesive (*See col. 5, ll. 34-37, col. 3, l. 36 and FIGs 9 and 3, #50.*) for the purpose of providing a structure having high tensile strength (*See col. 2, ll. 29-33.*).

FIG. 9



Therefore, it would have been obvious to a person having ordinary skill in the art at the time Applicant's invention was made to substitute Roebroeks' ('950) plastic layer with the above fibre plastic layer in order to provide a structure that has high tensile strength.

ANSWERS TO APPLICANT'S ARGUMENTS

18. In response to Applicant's arguments (*p. 7, para. 4 to p. 8, para. 1 of Applicant's Paper filed 15 August 2008*) that the fill in Roebroeks ('950) is a metal layer which is negatively excluded by the amended claims, it is noted that said new limitation is discussed above. Furthermore, Applicant also discloses its fill as being made of metal, thus, this is an appropriate material for the fill. Furthermore, as discussed above Applicant does not have support for said negative limitation.

19. No further precise arguments are presented regarding any issues than already discussed above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brent T. O'Hern whose telephone number is (571)272-0496. The examiner can normally be reached on Monday-Thursday, 9:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Brent T O'Hern/
Examiner, Art Unit 1794
August 23, 2008

/Elizabeth M. Cole/
Primary Examiner, Art Unit 1794